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Jan Buckwald

Steve Scholl

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# Recognizing and Using Cognitive Learning Styles: An Exercise

**Jan Buckwald and Steve Scholl**

*John F. Kennedy University*

**The effectiveness of any individual learning instrument depends, in part, on how well one is guided to new information as revealed by a different framing of concepts. In permitting oneself to incorporate this new awareness into the larger concept of self, the success of the exercise is then dependent on how able one is to go beyond the boundaries of the instrument. David Kolb's Learning Style Inventory (LSI) is, within its limitations, successful both in generating new self-awareness and encouraging exploration beyond the guidelines of the exercise. Although the scoring seems to obscure the strengths of apparently exclusive ways or styles of learning, it does seem to accurately reflect the learning style preference, or self described emphasis of one mode relative to the others. The teacher and student can, with this information, find new ways to support strong areas and to focus attention on expanding those that have been less developed. The underlying assumption, of course, is that the more we expand our limits, the more complete our learning experience becomes.**

**This exercise is based on David Kolb's "Experiential Learning Theory" and his "Learning Style Inventory." The objective is to help students and/or teachers to recognize differences among people in their preference for particular learning styles, to identify four approximate manifestations of such styles, and to suggest concrete ways in**

which students and teachers can support each other in strengthening and extending successful approaches to learning.

**This Exercise Is Not Intended To Be *Proscriptive*. The Inventory And Suggestions Generated During The Exercise Should Be Used Heuristically To Help Students And Teachers Be More Articulate About The Way They Learn And To Expand Their Skills In Learning And Teaching.**

We have used versions of this exercise with faculty, students and personal staff. Its present form emerged over several years as part of the GLCA Course Development and Teaching workshop described later in this volume, wherein it was a one and one-half hour evening session that was designed to prepare faculty to recognize legitimate differences in learning (and teaching) styles before they began extensive microteaching work with each other. More recently we've made the exercise even more open-ended as part of an undergraduate orientation course for adults completing their B.A.'s. There it is used as part of an all-day workshop, and students also write about what they do and don't do well, in learning groups to define "what is a good education" and take the Omnibus Personality Inventory, among other things. The Learning Style Inventory can be the basis for a three-hour (or longer) "stand-alone" workshop if there is an application component, such as an exercise in which faculty teach something to each other trying to capitalize on more than one learning style.

Many others have used Kolb's theory and his instrument. The references following the exercise description provide some good places to begin for background reading. The LSI self-scoring materials and the technical manual are available from Mcber and Company, 137 Newbury Street, Boston, Massachusetts, 02116, (617) 437-7080. David Kolb has not commented on our approaches to using his instrument, nor (to our knowledge) does he know about what we have done. We also often use a handout prepared by Joanne Kurfiss (Utah State) that describes a Piagetian three-phase learning cycle based on the work of Robert Karplus (University of California, Berkeley). We do not include it or reference to it in following description because it requires rather complicated integration of varying developmental theories—a liability when trying to present a concrete learning experience to novice faculty or students. But once hooked on any explora-

tion of learning styles, we think you will want to go beyond Kolb, incorporating theorists such as Piaget and practitioners such as William Perry, on into territory which you and we have yet to see.

## Requirements

**Size of Group:** 12 to 30. Too few participants will mean one or more learning styles will be omitted. Too many participants will make the general session too long and active participation by each individual difficult.

**Supplies:** One Kolb Learning Style Inventory (test and booklet) and pencil for participant, note paper for each, large sheets of newsprint and felt markers for each of four groups, masking tape, a blackboard or more newsprint. Optional: self-adhesive name tags for each participant.

**Time:** Approximately one and one-half hours, depending on size of group.

## Directions

Arrange a large room with sufficient chairs or seating places for each participant and enough space to divide the group comfortably into four subgroups for discussion and work.

**In Large Group:** Distribute the Kolb Learning Style Inventory test to everyone (Note: keep pages separate. Do not hand out the "type" descriptions in the booklet) and give brief instructions, offering help to get through the scoring on the first page. *Emphasize* the direction to mark "4" as the *most* preferred choice and "1" as the *least* preferred. While participants are taking the inventory, put on blackboard or newsprint large-scale representations of the "Learning Style Profile Norms" graph and the "Learning Style Type Grid." *Do not* label the grid with Kolb's type labels (accommodator, diverger, assimilator and converger). (10-15 minutes)

Using the "Norms" graph, ask two participants to give their raw scores for "CE," "RO," "AC," and "AE." Using different colored markers, draw a pattern on the graph connecting the raw score indicators and explain the meaning of each pattern in terms of preferred learning styles. Note the peculiarity of the norm group (for background

on this and other parts of the exercise, see Kolb's *Technical Manual* (1976) and his chapter on "Learning Styles and Disciplinary Differences" (1981).

Proceed to plot the combination scores (AC-CE and AE-RO) for the two volunteers on the learning style type grid. Invite all participants to do the same on their own grids, and proceed to record the location on the public grid for each participant or have each come up and plot their own score. (10-15 minutes) Try to avoid discussion on the theory or implications of these scores, noting that you will return to those topics later in the exercise.

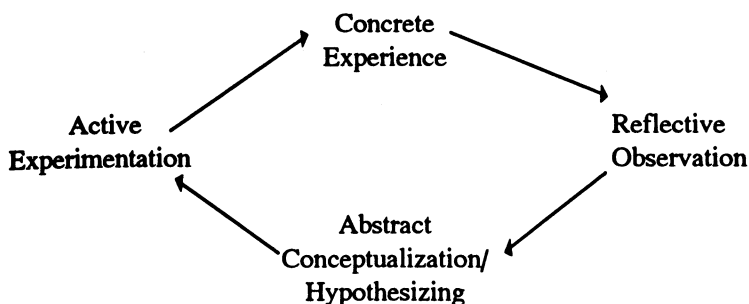
Divide the group into four subgroups based on the location of combination scores on the grid. Ideally, these will be clustered in the four quadrants. If the group is small or there is a peculiar distribution of scores, three groups might be used based on a clustering of scores in the quadrants or in proximate clusters around one or more of the axes. Have the groups go to the four corners of the room and provide each group with a sheet of newsprint and a felt marker.

Give the following instructions: "Spend 15 minutes discussing your own learning styles. Do not try to force agreement among yourselves, but aim for clear notions of how each person learns. Then select a name or label for your group that best approximates your collective learning style. Try to invent a name that your group feels comfortable with." Note: The group names they will come up with are often more colorful and richer than Kolb's descriptors. For example, "divergers"-those of high imaginative inclination who value concrete experience and reflective observation-have named themselves "Summer Afternoon," those Kolb calls "assimilators" claimed "philosopher kings" as their style while "accommodators" wanted to be called "energizers." As soon as at least two of the groups have their names (you may have to push them along a bit), give this second instruction: "Now list on the newsprint provided words or phrases that describe concrete, specific assignments for learning activities which you would prefer in a class or in independent study *for yourself*. Put your group name at the top of the sheet." (total time for subgroup work: 25-35 minutes)

Gather the group back together, keeping them sitting approximately in their subgroups and posting their newsprint sheets on the

wall behind each group. Ask someone in each group to explain the name chosen (printed large at the top of the sheet). After all groups have reported out, hand out the "Booklet" of type descriptions, invite comments, observations and questions. (10-20 minutes)

Conclude the exercises by presenting Kolb's "Experiential Learning Theory" using the cyclical diagram below. Explain how the exercise was designed to give first the concrete experience (taking the inventory), then to allow for reflection, next to invoke conceptualizing (work in groups), and to encourage experimentation afterwards, which leads to a concrete experience, and so on.



Point out that Kolb suggests that as we mature we might learn to use all of the various learning behaviors that are available to us rather than concentrate on one. Note that many people use one style in a particular kind of learning activity (graduate research, for instance) and another for a quite different activity (learning to ice skate, for instance). Suggest that students and teachers alternate the use of learning styles which are most comfortable and proven successful for a particular individual with those which challenge an individual to explore a new style and learn new skills.

An option for workshop design is to hand out blank name tags and have each person write the name of his or her group on the tag and wear it during subsequent exercises (such as discussion skill training, interpretation of other learning style and stage instruments, micro-teaching sessions, class group projects, etc.) Such identification should help people reconsider the responses they hear from members of the group, interpreting them properly at times as differences among

learning styles in addition to differences based on intelligence, general knowledge and other variables.

## References

- Claxton, Charles, and Ralston, *Learning Styles: Their Impact on Teaching and Administration*. Washington, D.C.: American Association for Higher Education, 1978.
- Doherty, Austin, et al. "Toward a Theory of Undergraduate Experiential Learning," in Keeton, Morris, and Tate, Pamela, eds. *New Directions for Experiential Learning*. San Francisco: Jossey-Bass, 1978.
- Kolb, David. *Learning Style Inventory: Technical Manual*. Boston: McBer, 1976.
- \_\_\_\_\_. *Learning Style Inventory: Self Scoring Test and Interpretative Booklet*. Boston: McBer, 1976.
- \_\_\_\_\_. "Learning Styles and Disciplinary Differences," in Chickering, Arthur and Associates. *The Modern American College*. San Francisco: Jossey-Bass, 1981.
- Kurfiss, Joanne. "The Three Phases of the 'Learning Cycles' Model, Based on the work of Robert Karplus." Unpublished handout, n.d.